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ABSTRACT

The "Future Problem Solving" exercises (originated by E. Paul Torrance at the University of Georgia) can be used as a method to teach literature. The process used in future problem solving entails all the higher level processes, involves both critical and creative thinking, as well as cooperative learning, and lends itself to the teaching of literature. The method takes the student through several helpful steps: (1) researching the topic; (2) brainstorming problems; (3) identifying the underlying problem; (4) brainstorming solutions; (5) selecting criteria; (6) evaluating solutions; and (7) describing the best solution. (Two charts are appended.) (MS)

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PROBLEM SOLVING AND LITERATURE

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PROBLEM SOLVING AND LITERATURE

How do I teach literature? Let me count the ways!

Fortunately, it does not take a math genius to answer this query, as English teachers are notoriously bad at math. Sadly, I had only one golden method: discuss the author's background if it is relevant to the literary work, read the story, poem, etc. (at home or in class, aloud or silently, all or part), engage in class discussion, and finally give a test or assign a paper on the reading assignment. To be sure, this method evoked some good literary background, provocative discussion and interesting papers, but I knew there had to be other ways to teach literature.

My "manna" came, not from Heaven, but from a problem solving program originated by E. Paul Torrance from the University of Georgia. It was appropriately called "Future Problem Solving." Each year students are given four topics which could be major problem areas in the 21st century. Problems for 1987-88 were: space travel, the elderly, acid rain and birth defects. Students must research the general topic. Then, they are given a "Fuzzy Situation," a one-page description of a situation revolving around the major topic. Inherent in the fuzzy are several sub-problems.

Working in teams of four, students complete a booklet by brainstorming 20 sub-problems. The sub-problems must state "who has the problem," "why this is a problem" and "how it relates to the fuzzy." Their next step is to develop one major underlying

problem from their list of mini-problems. This must be written in terms of "how might we" plus a key verb phrase, such as "design a program," "alleviate the misuse of funds," plus a desired condition "so that space travel can be continued" plus the parameters stated in the fuzzy, which means a place, "Century City, North America," and a date, "2011."

Step 3 is to brainstorm solutions to the underlying problem, making certain students elaborate (tell who, what, where, when, why) to their solutions. Next they formulate criteria to evaluate their 10 best solutions and then rank order the 10 best solutions according to the criteria they developed. (See Chart A.) When the students decide on their "best solution," they explain it in an essay. Chart B gives the overall picture.

This Future Problem Solving process entails all the higher level processes, involves both critical and creative thinking, cooperative learning (the latest educational trends), and it lends itself beautifully to the teaching of literature.

For example, if a teacher wanted a new approach to use with a short story such as "To Build a Fire," he/she could have students do some minimal research on survival techniques in the Yukon or in freezing temperatures. Then, students could read the story, either to the end or to a strategic part where the problems become apparent. That becomes their "Fuzzy Situation." From there, they can form groups and brainstorm some "subproblems" the main character may face. Then, they will determine the major underlying problem and state it in terms of "How might X (the main character) plus (key verb phrase) "preserve his body

warmth" so that (state the desired condition) "he can reach camp safely" (state parameter) "in his Yukon journey."

Once students have narrowed their focus, they brainstorm solutions to their conflict (problem), develop criteria upon which to evaluate their solutions and ascertain which solution is most appropriate. The final step is to elaborate on the final solution. This may be discussed in class, so that all students hear each group's final solution defended. Then, students may decide on their own final solution and defend it in an essay. To be sure, the pre-writing phase of writing is well implemented in the problem solving process.

Jack London's story is only one of the many literary works for which this process works. I've used it very successfully with Hamlet. Prior to using problem-solving, I would list Hamlet's many problems for the students; some were intrigued, and others were apathetic. But, when the students had to figure out the Dane's problems for themselves, in the more student-oriented cooperative learning circles, the entire lesson was more valuable, and student interest was much higher. Obviously, this technique would work well with any literary work which entails major and/or minor conflicts. It is also a very good strategy to use at middle schools with some of the "teen" literature. The teacher could replace the research phase with general class discussion on teen problems.

Like any other teaching technique, one would not want to use problem-solving "ad-nauseum." It does, however, provide a new approach to teaching literature.

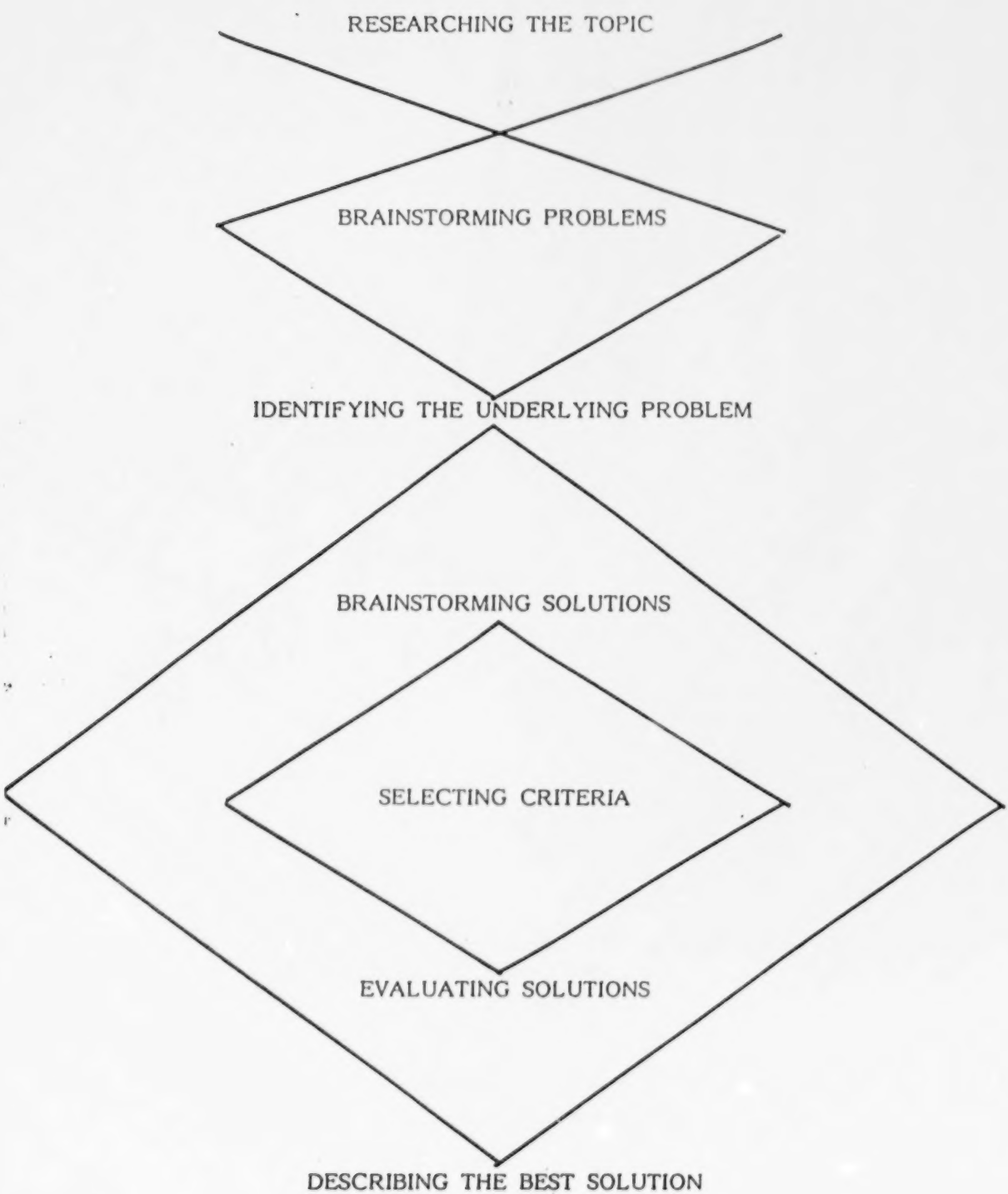
Robert Browning may have had many more answers to his question, "How do I love thee?" than I have to my "How do I teach literature?" Nevertheless, my answer, however singular, does provide a quality lesson.

CHART A

EXAMPLES: Two examples of grids developed correctly follow. Please keep in mind that the solutions and criteria have been abbreviated.

ALTERNATIVE SOLUTIONS	CRITERIA: Be the most acceptable to society	Be the most informative	Be the most workable	Be the most long-lasting	Conserve the most materials	TOTAL
1. Nuclear Waste Village						
2. Nuclear Waste Library						
3. Roller Coasters						
4. Emergency Camps						
5. Nuclear Waste Pamphlets						
6. Nuclear Waste Carnivals						
7. Nuclear Waste Movies						
8. Cindy & Sandy Lou Robots						
9. Boy & Girl Scout Camps						
10. Tours						

CHART B


RESEARCHING THE TOPIC
BRAINSTORMING PROBLEMS
IDENTIFYING THE UNDERLYING PROBLEM
BRAINSTORMING SOLUTIONS
SELECTING CRITERIA
EVALUATING SOLUTIONS
DESCRIBING THE BEST SOLUTION